**PATENT** 

**DOCKET NO.:** CRNT-0011 **Application No.:** 09/924,730

Office Action Dated: March 23, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application.

## **Listing of Claims:**

1. (Currently amended) A method for communicating a data signal over a <u>high</u> voltage power line having a center conductor carrying a <u>high voltage</u> power signal, wherein the method comprises:

inducing an alternating current (AC) voltage from the <u>high voltage</u> power signal carried by the power line;

powering a transceiver device with the induced AC voltage; and communicating the data signal with the transceiver device via the <u>high voltage</u> power line.

- 2. (Previously presented) The method of claim 1, further comprising transmitting the data signal to an end user communication device via the transceiver device.
- 3. (Previously presented) The method of claim 2, wherein the data signal is transmitted over a fiber optic link.
- 4. (Previously presented) The method of claim 1, further comprising receiving the data signal from an end user communication device via the transceiver device.
- 5. (Previously presented) The method of claim 2, wherein the data signal is received over a fiber optic link.
- 6. (Original) The method of claim 1, further comprising filtering the induced AC voltage.
- 7. (Previously presented) The method of claim 1, further comprising filtering the data signal.
- 8. (Currently amended) A device for communicating a data signal over a <u>high</u> voltage power line having a center conductor and an insulator, wherein the <u>high voltage</u> power line carries a <u>high voltage</u> power signal, the device comprising:

a transformer device having a core disposed in relation to the <u>high voltage</u> power line for inducing an AC voltage from the <u>high voltage</u> power signal carried by the <u>high voltage</u> power line; and

a transceiver that receives power from the transformer device, and

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wherein said transceiver communicates the data signal through the <u>high voltage</u> power line.

9. (Previously presented) The device of claim 8, further comprising:

a ferrite member disposed in proximity to the power line for increasing the inductance of a section of the power line; and

an enclosure for housing the ferrite member, the transformer device, and the transceiver device.

- 10. (Currently amended) The device of claim 8, wherein the <u>high voltage</u> power line includes a second conductor external to the insulator, wherein the transceiver communicates the data signal through the second conductor.
- 11. (Original) The device of claim 9, wherein the enclosure provides a ground potential.
- 12. (Original) The device of claim 8, wherein the transformer device is a current transformer.
- 13. (Original) The device of claim 8, wherein the transceiver is a fiber optic transceiver.
- 14. (Currently amended) The device of claim 10, wherein the <u>high voltage</u> power line includes an outer insulator external to the second conductor, said outer insulator includes a gap, and the transceiver is coupled to the second conductor at said gap in the outer insulator of the <u>high voltage</u> power line.
- 15. (Previously presented) The device of claim 8, wherein the power received by the transceiver is an AC power signal and the transceiver converts the AC power signal to a direct current (DC) power signal.
- 16. (Previously presented) The device of claim 8, wherein the power received by the transceiver is an AC power signal and further comprising a low-pass filter for filtering the AC power signal provided by the transformer device.
- 17. (Previously presented) The device of claim 8, further comprising a high-pass filter for filtering the data signal provided via the external conductor.
- 18. (Currently amended) A method for providing communication of a data signal over a coaxial power cable having a center conductor carrying a <u>high voltage</u> power signal,



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an outer conductor, and an outer insulator outside the outer conductor, the method comprising:

removing a portion of the outer insulator of the coaxial power cable;

coupling a communication device to the outer conductor of the coaxial power cable where the outer insulator is removed;

inducing a voltage from the <u>high voltage</u> power signal carried by the center conductor of the coaxial power cable; and

providing the induced voltage to power the communication device.

- 19. (Previously presented) The method of claim 18, further comprising grounding the outer conductor at a predetermined distance from the communication device.
- 20. (Previously presented) The method of claim 19, further comprising selecting the predetermined length to provide an inductance value.
- 21. (Previously presented) The method of claim 18, further comprising providing at least one ferrite core outside the outer insulator to adjust an inductance.
- 22. (Previously presented) The method of claim 18, further comprising providing a gap in the outer conductor, wherein the communication device is communicatively coupled to the outer conductor on both sides of the gap.
- 23. (Previously presented) The method of claim 18, wherein the induced voltage is supplied to the communication device via a power supply.
  - 24. (Canceled)
- 25. (Previously presented) A method for coupling a transceiver to an electric power line, wherein the electric power line has a center conductor that carries a first alternating current (AC) electrical voltage and a concentric outer conductor having an insulative cover, wherein the concentric outer conductor carries a data signal, the method comprising:

inducing a second voltage from the center conductor to provide power to the transceiver; and

communicating the data signal from the outer conductor to the transceiver.

26. (Currently Amended) The method of claim 25, wherein the data signal carried by the concentric outer conductor is supplied via a point of presence an access point to the Internet.



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27. (Previously presented) The method of claim 25, further comprising removing a portion of the insulative cover to expose the concentric outer conductor.

- 28. (Previously presented) The method of claim 27, wherein the removed portion of the insulative cover is removed from the periphery of the concentric outer conductor.
- 29. (Previously presented) The method of claim 25, wherein the transceiver receives the data signal from and provides the data signal to a customer premise device.
- 30. (Previously presented) The method of claim 29, wherein the customer premise device is at least one of the following: a computer, a telephone, and a facsimile machine.
- 31. (Previously presented) The method of claim 25, wherein the transceiver is conductively coupled to the outer conductor to facilitate data communications therethrough.
- 32. (Previously presented) The method of claim 25, further comprising converting the second voltage to a direct current voltage.
- 33. (Previously presented) The method of claim 25, wherein the first AC voltage is greater than 600 volts.
- 34. (Previously presented) The method of claim 25, wherein the inducing is accomplished using a ferrite core.
- 35. (Currently amended) A system for communicating a data signal on the outer conductor of an electric power line carrying an AC power signal having a first <u>high</u> voltage on a center conductor, comprising:

a transceiver in communication with the electric power line, wherein the transceiver is communicatively coupled to the outer conductor to provide communications therethrough, and

wherein the center conductor induces a second voltage that supplies power to the transceiver;

a power supply that converts the second voltage to a direct current voltage, wherein the direct current voltage is provided to transceiver; and

wherein the transceiver receives electrical power from the center conductor.

wherein said transceiver is conductively coupled to the outer conductor to facilitate data communications therethrough.

- 36. (Canceled)
- 37. (Canceled)

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38. (Currently amended) The system of claim 35, wherein the data signal communicated through the outer conductor traverses a point of presence an access point to the Internet.

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- 39. (Previously presented) The system of claim 35, wherein the power line has an insulative cover, a portion of which is removed.
- 40. (Previously presented) The system of claim 39, wherein the removed portion of the insulative cover exposes the outer conductor.
- 41. (Previously presented) The system of claim 35, wherein the transceiver receives the data signal from and provides the data signal to a customer premise device.
- 42. (Previously presented) The system of claim 41, wherein the customer premise device is at least one of the following: a computer, a telephone, and a facsimile machine.
  - 43. (Canceled
- stem of claim 35, wherein the first high voltage is 44. (Currently Amended) greater than 600 volts.

(Currently Amended) The system of claim 35, further comprising a ferrite core communication with the center conductor, wherein the ferrite wherein a core forms part of transformer that provides said second voltage of providing power to said transceiver; and wherein said core is disposed substantially around the entire circumference of the power line.

(New) The method of claim 1, wherein the high voltage power signal has a 46. voltage lever greater than 480 Wests AC.

(New) The device of claim 8 wherein said core is disposed substantially around the entire circumference of said high voltage power line.